

CLAIMS:

1. A granule comprising pyrogenically prepared silicon dioxide as a carrier and at least one substance selected from the group consisting of a foodstuff additive, a chemical intermediate and a plant protection agent.
2. The granule according to Claim 1, wherein the foodstuff additive is a member selected from the group consisting of dyestuffs, antioxidants, preservatives, emulsifiers, gelling agents, thickeners, binders, stabilizers, alkalis, acids, salts, antilumping agents, flavour intensifiers, sweeteners and aromas.
3. The granule according to Claim 1, wherein the plant protective agent is an herbicide, insecticide or fungicide.
4. The granule according to Claim 2, characterized in that the silicon dioxide granule is silanized.
5. The granule according to Claim 1, wherein the silicon dioxide has the following characteristic data:

Pore volume:	0.5 to 2.5 ml/g
Pore size distribution:	less than 5% of the total pore volume has a pore diameter of less than 5 nm, remainder meso- and macropores
pH:	3.6 to 8.5
Tamped density:	220 to 700 g/l.
6. The granule according to Claim 5 wherein the granule has meso- and macropores, the volume of mesopores making up 10 to 80% of the total volume.
7. The granule according to Claim 1 having a particle size distribution of 80 volume % larger than 8 μm and 80 volume % smaller than 96 μm .

8. The granule according to Claim 4 which is silanized with a member selected from the group consisting of:

Halogeno-organosilanes of the type $X_3Si(C_nH_{2n+1})$

$X = Cl, Br$

$n = 1 - 20$

Halogeno-organosilanes of the type $X_2(R')Si(C_nH_{2n+1})$

$X = Cl, Br$

$R' = \text{alkyl}$

$n = 1 - 20$

Halogeno-organosilanes of the type $X(R')_2Si(C_nH_{2n+1})$

$X = Cl, Br$

$R' = \text{alkyl}$

$n = 1 - 20$

Halogeno-organosilanes of the type $X_3Si(CH_2)_m-R'$

$X = Cl, Br$

$m = 0, 1 - 20$

$R' = \text{alkyl, aryl (e.g. } -C_6H_5)$

$-C_4F_9, -OCF_2-CHF-CF_3, -C_6F_{13}, -O-CF_2-CHF_2$

$-NH_2, -N_3, -SCN, -CH=CH_2,$

$-OOC(CH_3)C=CH_2$

$-OCH_2-CH(O)CH_2$

$\text{---NH---CO---N---CO---(CH}_2)_5\text{---}$

$-NH-COO-CH_3, -NH-COO-CH_2-CH_3, -NH-(CH_2)_3Si(OR)_3$

$-S_x-(CH_2)_3Si(OR)_3$

Halogeno-organosilanes of the type $(R)_XSi(CH_2)_m-R'$

$X = Cl, Br$

$R = \text{alkyl}$

$m = 0, 1 - 20$

$R' = \text{alkyl, aryl (e.g. } -C_6H_5)$

$-C_4F_9, -OCF_2-CHF-CF_3, -C_6F_{13}, -O-CF_2-CHF_2$

$-NH_2, -N_3, -SCN, -CH=CH_2,$

$-OOC(CH_3)C=CH_2$

$-OCH_2-CH(O)CH_2$

$\text{---NH---CO---N---CO---(CH}_2)_5\text{---}$

$-NH-COO-CH_3, -NH-COO-CH_2-CH_3, -NH-(CH_2)_3Si(OR)_3$

$-S_x-(CH_2)_3Si(OR)_3$

Halogeno-organosilanes of the type $(R)_2X Si(CH_2)_m-R'$

$X = Cl, Br$

$R = \text{alkyl}$

$m = 0.1 - 20$

$R' = \text{alkyl, aryl (e.g. } -C_6H_5)$

$-C_4F_9, -OCF_2-CHF-CF_3, -C_6F_{13}, -O-CF_2-CHF_2$

$-NH_2, -N_3, -SCN, -CH=CH_2,$

$-OOC(CH_3)C = CH_2$

$-OCH_2-CH(O)CH_2$

$\text{---NH---CO---N---CO---(CH}_2)_5\text{---}$

$-NH-COO-CH_3, -NH-COO-CH_2-CH_3, -NH-(CH_2)_3Si(OR)_3$

$-Sx-(CH_2)_3Si(OR)_3$

Organosilanes of the type $(RO)_3Si(C_nH_{2n+1})$

$R = \text{alkyl}$

$n = 1 - 20$

Organosilanes of the type $R'_x(RO)_ySi(C_nH_{2n+1})$

$R = \text{alkyl}$

$R' = \text{alkyl}$

$n = 1 - 20$

$x+y = 3$

$x = 1, 2$

$y = 1, 2$

Organosilanes of the type $(RO)_3Si(CH_2)_m-R'$

$R = \text{alkyl}$

$m = 0.1 - 20$

$R' = \text{alkyl, aryl (e.g. } -C_6H_5)$

$-C_4F_9, OCF_2-CHF-CF_3, -C_6F_{13}, -O-CF_2-CHF_2$

$-NH_2, -N_3, -SCN, -CH=CH_2,$

$-OOC(CH_3)C = CH_2$

$-OCH_2-CH(O)CH_2$

$\text{---NH---CO---N---CO---(CH}_2)_5\text{---}$

$-NH-COO-CH_3, -NH-COO-CH_2-CH_3, -NH-(CH_2)_3Si(OR)_3$

$-Sx-(CH_2)_3Si(OR)_3$

Organosilanes of the type $(R'')_x(RO)_ySi(CH_2)_m-R'$

$R'' = \text{alkyl}$

$x+y = 2$

$x = 1, 2$

y = 1,2

R' = alkyl, aryl (e.g. -C₆H₅)

-C₄F₉, -OCF₂-CHF-CF₃, -C₆F₁₃, -O-CF₂-CHF₂

-NH₂, -N₃, -SCN, -CH=CH₂,

-OOC(CH₃)C = CH₂

-OCH₂-CH(O)CH₂

—NH—CO—N—CO—(CH₂)₅—

-NH-COO-CH₃, -NH-COO-CH₂-CH₃, -NH-(CH₂)₃Si(OR)₃

-S_x-(CH₂)₃Si(OR)₃.

9. The granule according to Claim 1 which is an adsorbate.
10. The granule according to Claim 9, characterized in that the silicon dioxide granules are silanized.
11. The granule according to Claim 1 in which a dyestuff is adsorbed on the surface thereof, or enveloped therein.
12. The granule according to Claim 1 in which an antioxidant is adsorbed on the surface thereof, or enveloped therein.
13. The granule according to Claim 1 in which a preservative is adsorbed on the surface thereof, or enveloped therein.
14. The granule according to Claim 1 in which an emulsifier is adsorbed on the surface thereof, or enveloped therein.
15. The granule according to Claim 1 in which a gelling agent is adsorbed on the surface thereof, or enveloped therein.
16. The granule according to Claim 1 in which a thickener is adsorbed on the surface thereof, or enveloped therein.

17. The granule according to Claim 1 in which a binder is adsorbed on the surface thereof, or enveloped therein.
18. The granule according to Claim 1 in which a stabilizer is adsorbed on the surface thereof, or enveloped therein.
19. The granule according to Claim 1 in which an alkali is adsorbed on the surface thereof, or enveloped therein.
20. The granule according to Claim 1 in which an acid is adsorbed on the surface thereof, or enveloped therein.
21. The granule according to Claim 1 in which a salt is adsorbed on the surface thereof, or enveloped therein.
22. The granule according to Claim 1 in which an antilumping agent is adsorbed on the surface thereof, or enveloped therein.
23. The granule according to Claim 1 in which a flavour intensifier is adsorbed on the surface thereof, or enveloped therein.
24. The granule according to Claim 1 in which a sweetener is adsorbed on the surface thereof, or enveloped therein.
25. The granule according to Claim 1 in which an aroma agent is adsorbed on the surface thereof, or enveloped therein.
26. A composition comprising a feedstuff additive and a granule formed of pyrogenically prepared silicon dioxide.
27. A composition comprising a chemical intermediate and a granule formed of pyrogenically prepared silicon dioxide.

28. A composition comprising a plant protection agent and a granule formed of pyrogenically prepared silicon dioxide.
29. A composition comprising an herbicide and a granule formed of pyrogenically prepared silicon dioxide.
30. A composition comprising an insecticide and a granule formed of pyrogenically prepared silicon dioxide.
31. A composition comprising a fungicide and a granule formed of pyrogenically prepared silicon dioxide.
32. A composition comprising a foodstuff, feedstuff, chemical intermediate or plant protection agent, and
a pyrogenically prepared silicon dioxide granule.
33. The granule according to Claim 1 which is spherical.
34. The granule according to Claim 1 which further contains a natural or synthetic resin.
35. The granule according to Claim 1 which further contains at least one of an antifoam agent, a peroxide, a stabilizer, a plasticizer, a free radical interceptor and a wetting agent.
36. The granule according to Claim 9 wherein the silicon dioxide envelops solid particles or liquid droplets of said substance.
37. The granule according to Claim 9 wherein 0.001 to 200 g of substance is present per 100 g of silicon dioxide granule.

38. The granule according to Claim 1 which has an average particle diameter of 10 to 120 μm and a BET surface area of 40 to 400 m^2/g .